



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,584	06/09/2000	Peter T Dietz	55434USA1A.002	2946
7590 02/23/2006			EXAMINER	
Harold C Knecht III Office of Intellectual Property Counsel 3M Innovative Properties Company P O Box 33427 St Paul, MN 55133			VO, HAI	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 02/23/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/591,584
Filing Date: June 09, 2000
Appellant(s): DIETZ, PETER T

Robert L. Showalter
For Appellant

EXAMINER'S ANSWER

MAILED
FEB 23 2006
GROUP 1700

This is in response to the appeal brief filed 11/25/2005 appealing from the Office action
mailed 06/22/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The statement of Related Appeals and Interferences contained in the brief is correct.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,033,785	TANAKA et al	03-2000
6,013,722	YANG et al	01-2000
5,677,050	BILKADI et al	10-1997
5,118,540	HUTCHISON	06-1992

4,157,417

MURPHY

06-1979

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5, 7-9, 11, 13, 17-21, 31-33, 38, 39 and 41 are rejected under 35

U.S.C. 103(a) as being unpatentable over Hutchison et al (US 5,118,540) in view of Murphy (US 4,157,417).

Hutchison discloses a reflective film mounted on a substrate having a layer construction as follows, a protective fluorocarbon film, a first layer of pressure sensitive adhesive, a silver layer, a biaxially oriented polyethylene terephthalate (PET), a second layer of pressure sensitive adhesive, a biaxially oriented PET, a third layer of pressure sensitive adhesive and a glass substrate (example 5 and figures 3 and 6). The biaxially oriented PET is about 38 microns thick (column 10, line 18) within the claimed range. The protective fluorocarbon film of Hutchison corresponds to the scratch resistant layer coating of the claimed invention. Hutchison discloses the protective fluorocarbon film serves to protect the laminate from damage through wear and tear (column 6, lines 45-48). Likewise, the protective film is scratch resistant. Hutchison discloses the reflective film having three PET layers (example 6). Hutchison is using the same acrylic pressure sensitive adhesive as Appellant (column 7, line 67), the modulus strength of the adhesive would be inherently present. Like material has like property. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. The combination of examples 5, 7 and 8 of Hutchison discloses the laminate having a thickness greater

Art Unit: 1771

than 5 mils meeting the specific range required by the claims. Hutchison teaches a layer of silver having a thickness of 1 to 1.5 microns. It is believed that the presence of the thin silver layer in the laminate does not necessarily cause the laminate completely non-transmissive to visible light but rather to reduce the visible light transmittance of the laminate. Since the claims are unspecific about the percentage of visible light transmission, Hutchison still reads on the claimed visible light transmittance. Hutchison teaches the reflective film suitable for solar energy applications (abstract). Hutchison does not specifically disclose the reflective film attached to window glass. Murphy, however, teaches the reflective film having been attached to window glass to reduce heat, glare of solar radiation to reduce heat, glare of solar radiation (abstract). This is important to the expectation of successfully practicing the invention of Hutchison and thus suggesting the modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the reflective film in combination with window glass motivated by the desire to reduce the heat and glare of solar radiation.

Hutchison does not specifically disclose the reflective film being capable of passing one or more of the tests as recited in the claims. However, it appears that the reflective film of Hutchison as modified by Murphy is structurally the same, and made of the same materials as the presently claimed laminate. The reflective film meets all the structural limitations, having the thickness within the claimed range. The reflective film is attached to the window glass by the acrylic pressure sensitive adhesive as disclosed by the present invention. Each biaxially oriented polyester film layer as disclosed by

Art Unit: 1771

Hutchison has a thickness within the claimed range. The polyester films are bonded to each other by the pressure sensitive adhesive layer. The reflective film is light transmittance. Therefore, it is the examiner's position that the reflective film would be substantially inherently capable of passing one or more of the tests as recited in the claims. This is also in line with *In re Spada*, 15 USPQ 2d 1655 (1990).

Murphy fails to teach the window glass suitable for use in vehicular or architectural glazing element. It is recognized that "suitable for use in vehicular or architectural glazing element" is an intended use limitation. It has been held that a recitation with respect to the manner in which a claimed window glass is intended to be employed does not differentiate the claimed window glass from a prior window glass satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Mere recitation of "suitable for use in vehicular or architectural glazing element" impacts no definite structure to the claimed window glass and is therefore found inadequate to convey structure in any patentable sense.

Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison et al (US 5,118,540) in view of Murphy (US 4,157,417) as applied to claim 1, in view of Tanaka et al (US 6,033,785).

Neither Hutchison nor Murphy discloses that the window glass is tempered.

Tanaka, however, teaches a glass pane comprising a glass plate and a multilayered film formed on the surface of the glass plate (column 2, lines 22-30). Tanaka also teaches that the glass plate is a tempered glass plate (column 5, lines 15-20). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention

Art Unit: 1771

was made to employ the tempered glass window to which the reflective film is attached because glass is tempered for strength and safety.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison et al (US 5,118,540) in view of Murphy (US 4,157,417) as applied to claim 1 above, in view of Bilkadi et al (US 5,677,050).

Hutchison discloses a laminate 100 comprising a scratch-resistant fluorocarbon film 160 bonded to an acrylic pressure sensitive adhesive 150 (figure 1). Hutchison is silent as to the laminate comprising a scratch-resistant ceramer coating. Bilkadi teaches the retroreflective sheeting comprising a ceramer coating which exhibits high levels of impact resistance, stain resistance and hardness (abstract). This is important to the expectation of successfully practicing the invention of Hutchison and thus suggesting the modification. Bilkadi discloses that the ceramer coating works well on polyacrylics adhesive (column 4, lines 12-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the ceramer coating with the scratch-resistant fluorocarbon film of Hutchison motivated by the desire to obtain a coating that exhibits higher levels of impact resistance, stain resistance and hardness.

Claims 14, 15, 22 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison et al (US 5,118,540) in view of Murphy (US 4,157,417) as applied to claim 1 above, further in view of Yang et al (US 6,013,722).

Hutchison does not specifically teach the presence of a crosslinker in the attachable pressure sensitive adhesive. Yang, however, teaches a low haze acrylic

Art Unit: 1771

emulsion pressure sensitive adhesive for use in optical articles comprising a cross-linking agent (column 4, lines 1-5). Yang teaches an adhesive coated film having a percent haze less than 2 % (table 1) within the claimed range. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated a cross-linking agent into the attachable pressure sensitive adhesive of the window film motivated by the desire to obtain a laminate that exhibits low haze when adhered to glass surface.

Claims 12 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison et al (US 5,118,540) in view of Murphy (US 4,157,417) and Bilkadi et al (US 5,677,050).

Hutchison discloses a laminate having a construction in a following order: surface of solar energy/adhesive/polyester/polyester/adhesive/silver/adhesive/polyester (example 7). Hutchison teaches the polyester layer of the laminate being protected with a premask film prior to installation and during installation. Hutchison discloses the use of an acrylic pressure sensitive adhesive to bond the silver layer and the polyester. Hutchison is silent as to a scratch-resistant ceramer coating. Bilkadi supplies the missing feature. Bilkadi teaches a retroreflective sheeting having an abrasion resistant creamer coating (abstract). Bilkadi teaches that the ceramer coating works well on polyacrylics adhesive (column 4, lines 12-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ceramer coating as taught in Bilkadi on the outer surface of the laminate motivated by

Art Unit: 1771

the desire to provide the laminate with excellent in abrasion resistance and outdoor durability.

Hutchison does not specifically disclose the reflective film attached to window glass. Murphy, however, teaches the reflective film having been attached to window glass to reduce heat, glare of solar radiation to reduce heat, glare of solar radiation (abstract). This is important to the expectation of successfully practicing the invention of Hutchison and thus suggesting the modification. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the reflective film in combination with window glass motivated by the desire to reduce the heat and glare of solar radiation.

Murphy fails to teach the window glass suitable for use in vehicular or architectural glazing element. It is recognized that "suitable for use in vehicular or architectural glazing element" is an intended use limitation. It has been held that a recitation with respect to the manner in which a claimed window glass is intended to be employed does not differentiate the claimed window glass from a prior window glass satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Mere recitation of "suitable for use in vehicular or architectural glazing element" impacts no definite structure to the claimed window glass and is therefore found inadequate to convey structure in any patentable sense.

(10) Response to Argument

Examiner's comments on HUTCHISON AND MURPHY AND CLAIMS 1-5, 7-9, 11, 13, 17-21, 31-33, 38, 39 and 41.

The examiner respectfully wishes to point out that the difference between the present claims and the claims on first appeal (Appeal No. 2005-0244) is an additional intended use limitation "suitable for use in a vehicular or architectural glazing element". As such, the scope of the present invention is not distinguishable from the scope of the claims on the first appeal. Since the Board has affirmed rejections over Hutchison in view of Murphy, the examiner maintains that the rejections of the pending claims are sustained. Additionally, under the principles of *res judicata* and *collateral estoppel*, Appellant was not entitled to claims that were patentably indistinguishable from the claim lost in the first appeal.

Appellant argues that nowhere does Hutchison disclose or suggest using his film in combination with window glass for use in a vehicular or architectural glazing element. Appellant further argues that to use window glass to support the Hutchison film would be completely contrary to the scope of the Hutchison invention because Hutchison film reflects "solar radiation impinging on any part of the surface of the flexible reflective film". The examiner disagrees. As confirmed by the Board, Hutchison does teach some uv light transmitted by the thin layer of silver (column 2, lines 14-20, see page 6 of the 01/28/2005 Decision on Appeal). Therefore, in view of the teachings of Murphy, one skilled in the art would have been motivated to use the reflective film of Hutchison in

combination with a window glass suitable for use in a vehicular or architectural glazing element motivated by the desire to reduce the heat and glare of solar radiation.

Appellant argues that one skilled in the art would not have been motivated to use the reflective film of Hutchison on the window glass of Murphy because the Hutchison reflective film construction would not permit enough visible light through the window suitable for use in a vehicular or architectural application. Appellant states that any vehicle that had its windows covered with Hutchison reflective film construction would be a danger to the occupants because the driver's ability to see through the windows would be significantly impaired. The arguments are not found persuasive for patentability because they are not commensurate in scope with the claims. Nothing in the claims is specific about a window glass of the vehicles. The recitation "suitable for use in a vehicular or architectural glazing element" is an intended use limitation and does not necessarily require the *vehicular* window glass to be part of the claims. Further, it is recognized that there is nothing wrong with the use of the Hutchison reflective film construction on the windows in the passenger sides of the vehicles because it would of course not interfere with the driver's ability to see through the windows.

Appellant resists that Hutchison is not combinable with Murphy because the two inventions do not exhibit functions that are consistent with each other. Since the board has confirmed that the functions of these two films are very much alike (page 6 of the 01/28/2005 Decision on Appeal), it is submitted that the teachings of the two references are properly combined in the rejection of the pending claims.

Examiner's comments on HUTCHISON, MURPHY AND BILKADI ET AL and CLAIM

6.

Appellant argues that Bilkadi discloses a retroreflective sheeting including a cured ceramer layer, however, there is no teaching or suggestion in the Bilkadi reference of a laminate comprising at least two flexible nonadhesive polymeric material laminae and wherein the laminae has a thickness of at least about 5 mils, exhibits a light transmittance and is attached to window glass. There is no need for Bilkadi to address these issues since they are already taught in the Hutchison reference. Further, Appellant argues that there is no motivation or suggestion for combining the teachings of Hutchison, Murphy and Bilkadi. The examiner disagrees. Hutchison discloses a laminate 100 comprising a scratch-resistant fluorocarbon film 160 bonded to an acrylic pressure sensitive adhesive 150 (figure 1). Hutchison is silent as to a scratch-resistant ceramer coating. Bilkadi teaches the retroreflective sheeting comprising a ceramer coating which exhibits high levels of impact resistance, stain resistance and hardness (abstract). This is important to the expectation of successfully practicing the invention of Hutchison and thus suggesting the modification. Bilkadi discloses that the ceramer coating works well on polyacrylics adhesive (column 4, lines 12-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the ceramer coating with the scratch-resistant fluorocarbon film of Hutchison motivated by the desire to obtain a coating that exhibits higher levels of impact resistance, stain resistance and hardness.

Appellant's reiterated positions taken with respect to the other rejections, the examiner's comments set forth above are equally pertinent in the support of these rejections as well. Further, since the scope of the present invention is not distinguishable from the scope of the claims on the first appeal and the Board has affirmed rejections over Hutchison in view of Murphy and Bilkadi, the rejections of the pending claims are sustained.

Examiner's comments on HUTCHISON, MURPHY AND BIKADI ET AL. and CLAIMS 12 and 42.

Appellant argues that there is no suggestion or motivation in either cited reference to replace a temporary polypropylene premask film as disclosed by Hutchison with a permanent cured creamer layer as described by Bilkadi. The arguments are not found persuasive for patentability because basis of obviousness from which the rejections was formulated has nothing related to the replacement of a temporary polypropylene premask film of Hutchison with a permanent cured creamer layer of Bilkadi as asserted by Appellant. Hutchison discloses a laminate having a construction in a following order: surface of solar energy/adhesive/polyester/polyester/adhesive/silver/adhesive/polyester (example 7). Hutchison teaches the polyester layer of the laminate being protected with a premask film prior to installation and during installation. Hutchison discloses the use of an acrylic pressure sensitive adhesive to bond the silver layer and the polyester. Hutchison discloses that the premask film may be applied onto the laminate to afford protection against handling prior to installation and during installation (example 8). Nothing in the

Art Unit: 1771

Hutchison discloses or suggests that the premask film is a required component of the reflective film. Hutchison is silent as to a scratch-resistant ceramer coating. Bilkadi supplies the missing feature. Bilkadi teaches a retroreflective sheeting having an abrasion resistant ceramer coating (abstract). Bilkadi teaches that the ceramer coating works well on polyacrylics adhesive (column 4, lines 12-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ceramer coating as taught in Bilkadi on the outer surface of the laminate motivated by the desire to provide the laminate with excellent in abrasion resistance and outdoor durability. Accordingly, the art rejections are sustained.

Examiner's comments on HUTCHISON, MURPHY AND TANAKA ET AL. and

CLAIM 10.

Appellant's reiterated positions taken with respect to the other rejections, the examiner's comments set forth above are equally pertinent in the support of these rejections as well. Further, since the scope of the present invention is not distinguishable from the scope of the claims on the first appeal and the Board has affirmed rejections over Hutchison in view of Murphy and Bilkadi, the rejections of the pending claims are sustained.

Examiner's comments on HUTCHISON, MURPHY AND YANG ET AL. and CLAIMS

14,15, 22 and 35.

Appellant's reiterated positions taken with respect to the other rejections, the examiner's comments set forth above are equally pertinent in the support of these rejections as well. Further, since the scope of the present invention is not

Art Unit: 1771

distinguishable from the scope of the claims on the first appeal and the Board has affirmed rejections over Hutchison in view of Murphy and Bilkadi, the rejections of the pending claims are sustained.

(11) Related Proceeding(s) Appendix

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided herein.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

HV

Hai Vo
HAI VO
PRIMARY EXAMINER

Conferees:

Terrel Morris, SPE 1771 - *FM*

Carol Chaney, SPE 1773 - *CC*

APPEAL CONFERENCE: *Robert J. Warden, Jr.*
Director's Designee

**UNITED STATES DEPARTMENT OF COMMERCE****U.S. Patent and Trademark Office**

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

EXAMINER

ART UNIT	PAPER
----------	-------

0118

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

Claims 41 and 42 are missing from the headings "Claims 1-5, 7-9, 11, 13, 17-21, 31-33, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison et al (US 5,118,540) in view of Murphy (US 4,157,417)" and "Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison et al (US 5,118,540) in view of Murphy (US 4,157,417) and Bilkadi et al (US 5,677,050) respectively in the "Grounds of Rejection" Section of the Examiner's Answer mailed on 01/23/2006. The supplemental Examiner's Answer does not include a new ground of rejection and is intended to correct the informalities, therefore, the supplemental Examiner's Answer is deemed necessary.